**USGS**
science for a changing world

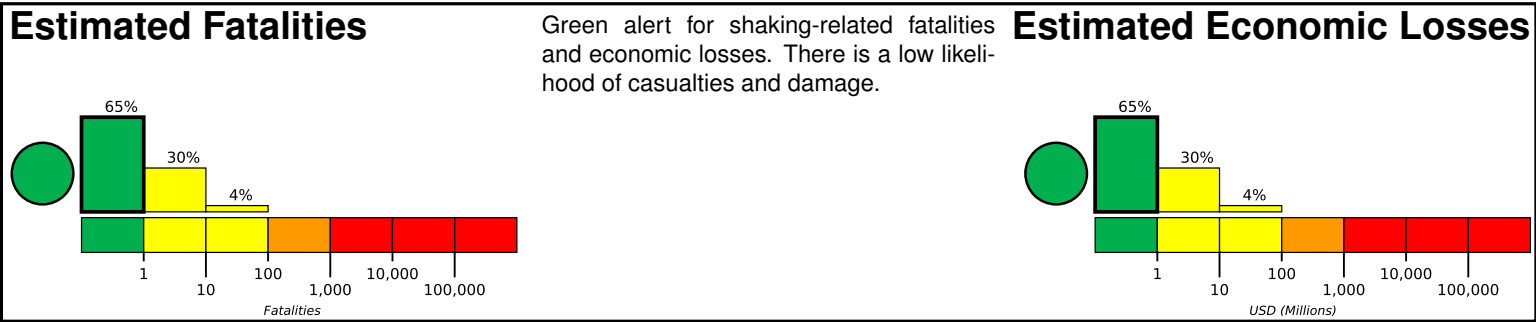Earthquake Shaking — Green Alert

GSN
USAID FROM THE AMERICAN PEOPLE
ANSS

# M 3.9, 20 km N of Stanton, Texas

Origin Time: 2023-11-05 00:49:52 UTC (Sat 19:49:52 local)
Location: 32.3100° N 101.8061° W Depth: 2.1 km

**PAGER**
**Version 5**

Created: 1 day, 0 hours after earthquake

## Estimated Fatalities

65%
30%
4%

1    10    100    1,000    10,000    100,000
*Fatalities*

Green alert for shaking-related fatalities and economic losses. There is a low likelihood of casualties and damage.

## Estimated Economic Losses

65%
30%
4%

1    10    100    1,000    10,000    100,000
*USD (Millions)*

## Estimated Population Exposed to Earthquake Shaking

| ESTIMATED POPULATION EXPOSURE (k=x1000) | | –* | 1,371k | 4k | 0 | 0 | 0 | 0 | 0 | 0 |
|---|---|---|---|---|---|---|---|---|---|---|
| ESTIMATED MODIFIED MERCALLI INTENSITY | | I | II-III | IV | V | VI | VII | VIII | IX | X+ |
| PERCEIVED SHAKING | | Not felt | Weak | Light | Moderate | Strong | Very Strong | Severe | Violent | Extreme |
| POTENTIAL DAMAGE | Resistant Structures | None | None | None | V. Light | Light | Moderate | Mod./Heavy | Heavy | V. Heavy |
| | Vulnerable Structures | None | None | None | Light | Moderate | Mod./Heavy | Heavy | V. Heavy | V. Heavy |

*Estimated exposure only includes population within the map area.

## Population Exposure

population per 1 sq. km from Landscan

0    5    50    100    500    1000    5000    10000
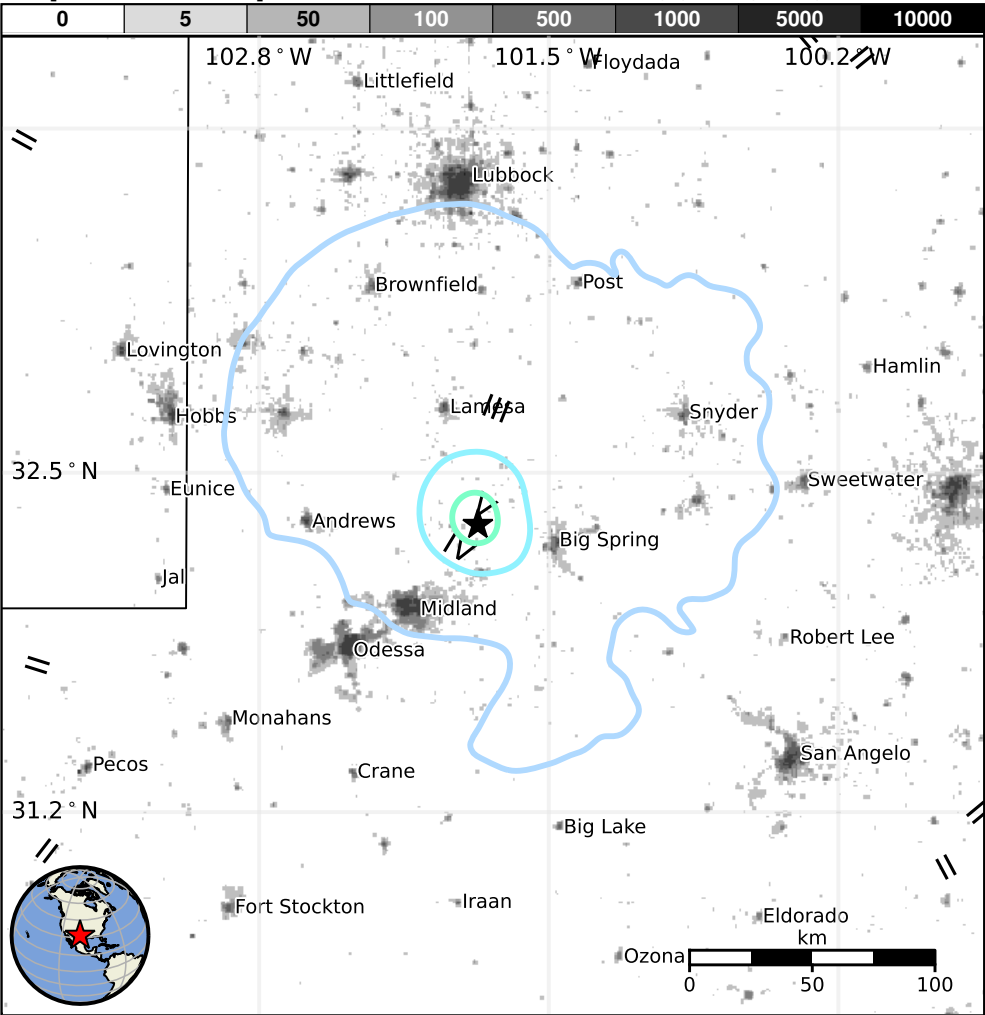


## Structures

Overall, the population in this region resides in structures that are resistant to earthquake shaking, though vulnerable structures exist. The predominant vulnerable building types are unreinforced brick masonry and reinforced masonry construction.

## Historical Earthquakes

| Date (UTC) | Dist. (km) | Mag. | Max MMI(#) | Shaking Deaths |
|---|---|---|---|---|
| 1978-06-16 | 126 | 5.3 | IV(18k) | – |
| 1992-01-02 | 121 | 5.0 | V(4k) | – |
| 1995-04-14 | 270 | 5.7 | V(7k) | 0 |

## Selected City Exposure

from GeoNames.org

| MMI | City | Population |
|---|---|---|
| IV | Stanton | 2k |
| III | **Big Spring** | **27k** |
| III | **Lamesa** | **9k** |
| III | Gail | 0 |
| III | **Snyder** | **11k** |
| III | Tahoka | 3k |
| III | **Midland** | **111k** |
| II | **Lubbock** | **230k** |
| II | **Odessa** | **100k** |
| II | **San Angelo** | **93k** |
| II | Abilene | 117k |

bold cities appear on map.    (k = x1000)

PAGER content is automatically generated, and only considers losses due to structural damage.
Limitations of input data, shaking estimates, and loss models may add uncertainty.
https://earthquake.usgs.gov/earthquakes/eventpage/tx2023vqus#pager

**Event ID: tx2023vqus**